

THE TRIBE COLPURINI (HEMIPTERA: HETEROPTERA: COREIDAE)  
OF THE PHILIPPINE REPUBLIC, WITH DESCRIPTIONS OF FOUR NEW  
SPECIES, AND A SYNONYMICAL NOTE

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*Abstract.*—A checklist of the known genera, subgenera, and species of the coreine tribe Colpurini (Hemiptera: Heteroptera) from the Philippine Republic is given. Four **new species**, *Hygia (Eucolpura) cassisi*, *Hygia (Sphinctocolpura) alvarezzi*, *Hygia (Sphinctocolpura) oligotricha*, and *Kekihygia culiona*, are described. Dorsal habitus illustrations and drawings of the pronotum and male genital capsule are provided to distinguished these species. *Hygia (Colpura) obscuricornis* (Stål) is **synonymized** with *Hygia (Colpura) pallidicornis* (Stål).

*Key Words:* Insecta, Heteroptera, Coreidae, Colpurini, new species, Philippine Republic

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The Colpurini of the Philippine Republic are still incompletely known, due the lack of recent through collecting on most of the very many islands (over 7,100, with only 11 larger than 2,500 km), which constitute the Philippine archipelago (Cassola 2000).

The Philippine Colpurini fauna has been described or reviewed by Stål (1870), Walker (1871), Bergroth (1916, 1918), Blothe (1936), and more recently by Brailovsky (1994a, b, 1995, 1996, 1997, 1998) and Brailovsky and Barrera (1997, 2002).

The Philippine members of the tribe are usually black or dark, with striking structural differences in the hemelytra, as well as a great diversity in the male genital capsule and in the female genital plates. This contribution brings the known Philippine fauna to 7 genera, 4 subgenera, and 27 species. Of that total, 4 species are described here as new.

The following abbreviations are used for the institutions cited in this paper: AMS (Australian Museum, Sydney, Australia); BMNH (The Natural History Museum,

London, England); BPBM (Bernice P. Bishop Museum, Honolulu, Hawaii); FMNH (Field Museum Natural History, Chicago, Illinois); NRE (Naturhistoriska Riksmuseet, Stockholm); UNAM (Instituto de Biología, Universidad Nacional Autónoma de México).

All measurements are given in millimeters.

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CHECKLIST OF THE PHILIPPINE COLPURINI

*Baumannhygia insulata* Brailovsky, 1996  
*Carvalhygia carvalhoi* Brailovsky, 1995  
*Carvalhygia milzae* Brailovsky, 1995  
*Carvalhygia nigra* Brailovsky, 1995  
*Carvalhygia camarinesa* Brailovsky and Barrera, 2002  
*Homalocolpura aploa* Brailovsky, 1994b  
*Homalocolpura leyteana* Brailovsky, 1994b  
*Homalocolpura parrilloi* Brailovsky, 1994b  
*Homalocolpura sorbax* Bergroth, 1918  
*Hygia (Colpura) pallidicornis* (Stål, 1870)  
*Hygia (Colpura) obscuricornis* (Stål, 1870) new synonym

- Hygia (Eucolpura) cassis* Brailovsky, new species  
*Hygia (Microcolpura) denticollis* (Bergroth, 1918)  
*Hygia (Sphinctocolpura) alvarezi* Brailovsky, new species  
*Hygia (Sphinctocolpura) dentifer* (Stål, 1870)  
*Hygia (Sphinctocolpura) maculipes* (Stål, 1870)  
*Hygia (Sphinctocolpura) obscuripes* (Stål, 1870)  
*Hygia (Sphinctocolpura) oligotricha* Brailovsky, new species  
*Hygia (Sphinctocolpura) pictipes* (Stål, 1870)  
*Hygia (Sphinctocolpura) punctipes* (Stål, 1870)  
*Kekihygia culiona* Brailovsky, new species  
*Kekihygia luzonica* Brailovsky, 1994a  
*Kekihygia vasarhelyi* Brailovsky, 1994a  
*Sibuyanhygia atra* Brailovsky, 1997  
*Sibuyanhygia callejai* Brailovsky, 1997  
*Sibuyanhygia sibulana* Brailovsky, 1997  
*Typhlocolpura discoidalis* Brailovsky, 1998  
*Typhlocolpura vulcanalis* Bergroth, 1916

*Hygia (Colpura) pallidicornis* (Stål)

- Lybas pallidicornis* Stål 1870: 654. Type ♀, deposited in NRE.  
*Lybas obscuricornis* Stål 1870: 654. Types ♂, ♀, deposited in NRE. **New synonym.**

Stål (1870) described *Lybas pallidicornis* based on a single female, and *Lybas obscuricornis* based on one male and one female. Types of both are at NRE.

Stål separated these two taxa by the different coloration of antennae, length of rostrum, shape of pronotal humeral angles, and presence or absence of a yellow marking on the apical margin of the endocorium.

Even after examining the respective types, as well as a large set of specimens that belong to this species complex, I was unable to separate these two species. The characters mentioned above overlap. That is, the coloration of the antennal segments varied from yellowish ochre to pale yellow

to chestnut yellow; the rostrum reached the posterior border of abdominal sternite III or the anterior border of segment V; the humeral angles display vague differences; and the yellow marking on the endocorium is either well defined, diffuse, or in some specimens not visible.

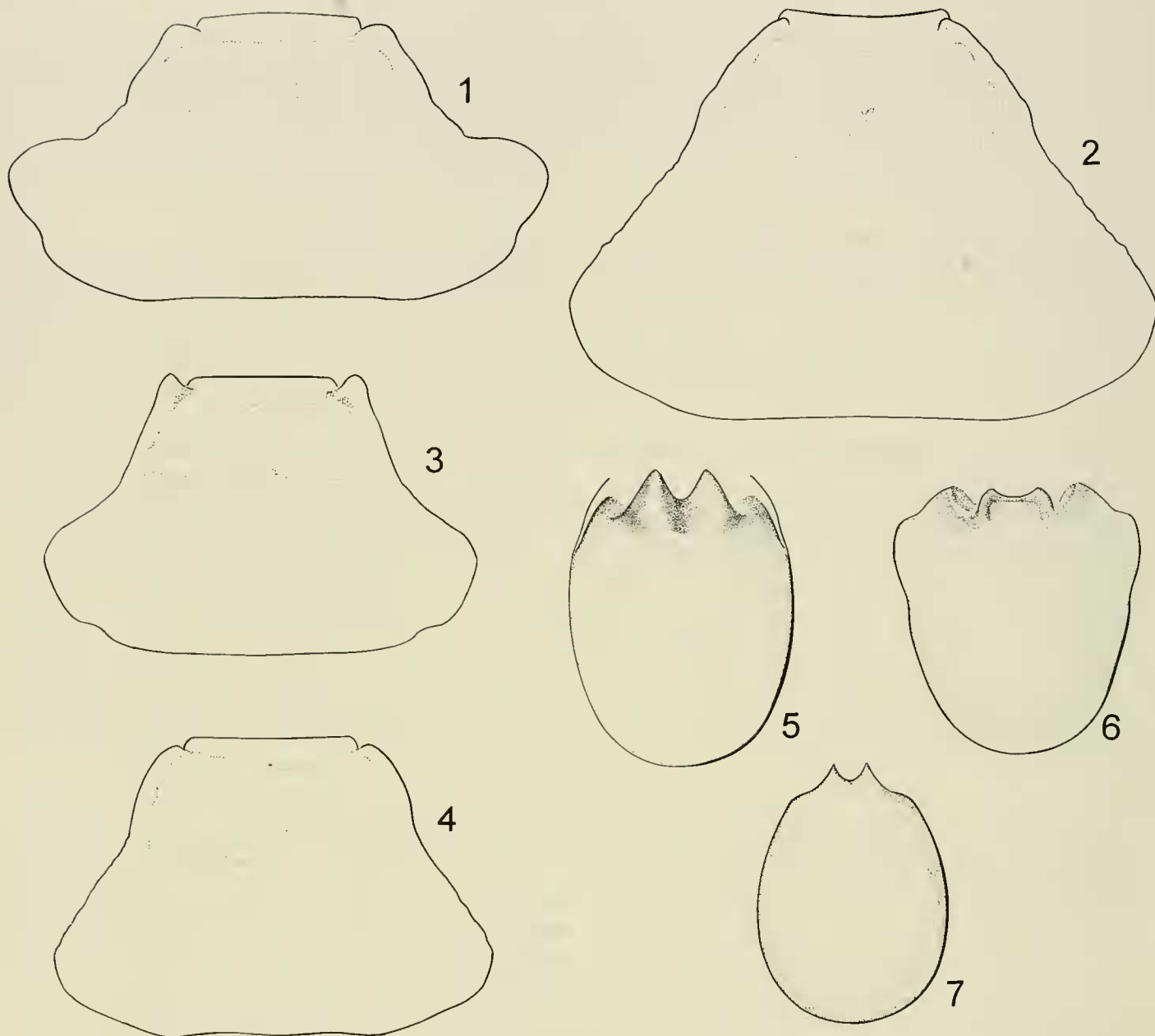
Differences in body length, relative size of antennal and rostral segments, proportional measurements of the scutellum, wing development, and general body color are not significant. The female genital plates are the same in both taxa. For that reason both species are here synonymized.

***Hygia (Eucolpura) cassis* Brailovsky,  
new species**

(Figs. 2, 15, 17, 21)

Description.—*Measurements*: Male: Head length 1.96; width across eyes 2.06; interocular space 1.12; interocellar space 0.50; preocular distance 1.22; length antennal segments: I, 3.40; II, 4.40; III, 3.36; IV, 1.96. Pronotum: Length 2.96; maximum width of anterior lobe 2.66; maximum width of posterior lobe 4.40. Scutellar length 2.20; width 1.72. Body length 15.03. Female: Head length 2.24; width across eyes 2.26; interocular space 1.20; interocellar space 0.52; preocular distance 1.34; length antennal segments: I, 3.44; II, 4.92; III, 3.72; IV, 2.08. Pronotum: Length 3.32; maximum width of anterior lobe 2.88; maximum width of posterior lobe 4.60. Scutellar length 2.40; width 2.00. Body length 17.18.

Male (holotype). *Dorsal coloration*: Head reddish brown with following areas ochre to pale yellow: longitudinal band adjacent to eyes, dorsal aspect of postocular tubercle, apex of tylus, and antenniferous tubercle; antennal segments I to III dark chestnut orange, basal joint of II and III yellow, IV dark chestnut orange with subbasal yellow ring; anterior lobe of pronotum reddish brown, posterior lobe and anterolateral margins entirely dark orange; scutellum dark orange brown with apex yellow; clavus and corium dark orange brown with



Figs. 1-7. 1-4. Pronotum. 1, *Hygia (Splinctocolpura) alvarezii*. 2, *H. (Eucolpura) cassisi*. 3, *H. (Splinctocolpura) obscuripes*. 4, *H. (S.) oligotricha*. 5-7. *Kekilygia* spp., male genital capsule in caudal view. 5, *K. culiona*. 6, *K. luzonica*. 7, *K. vasarhelyi*.

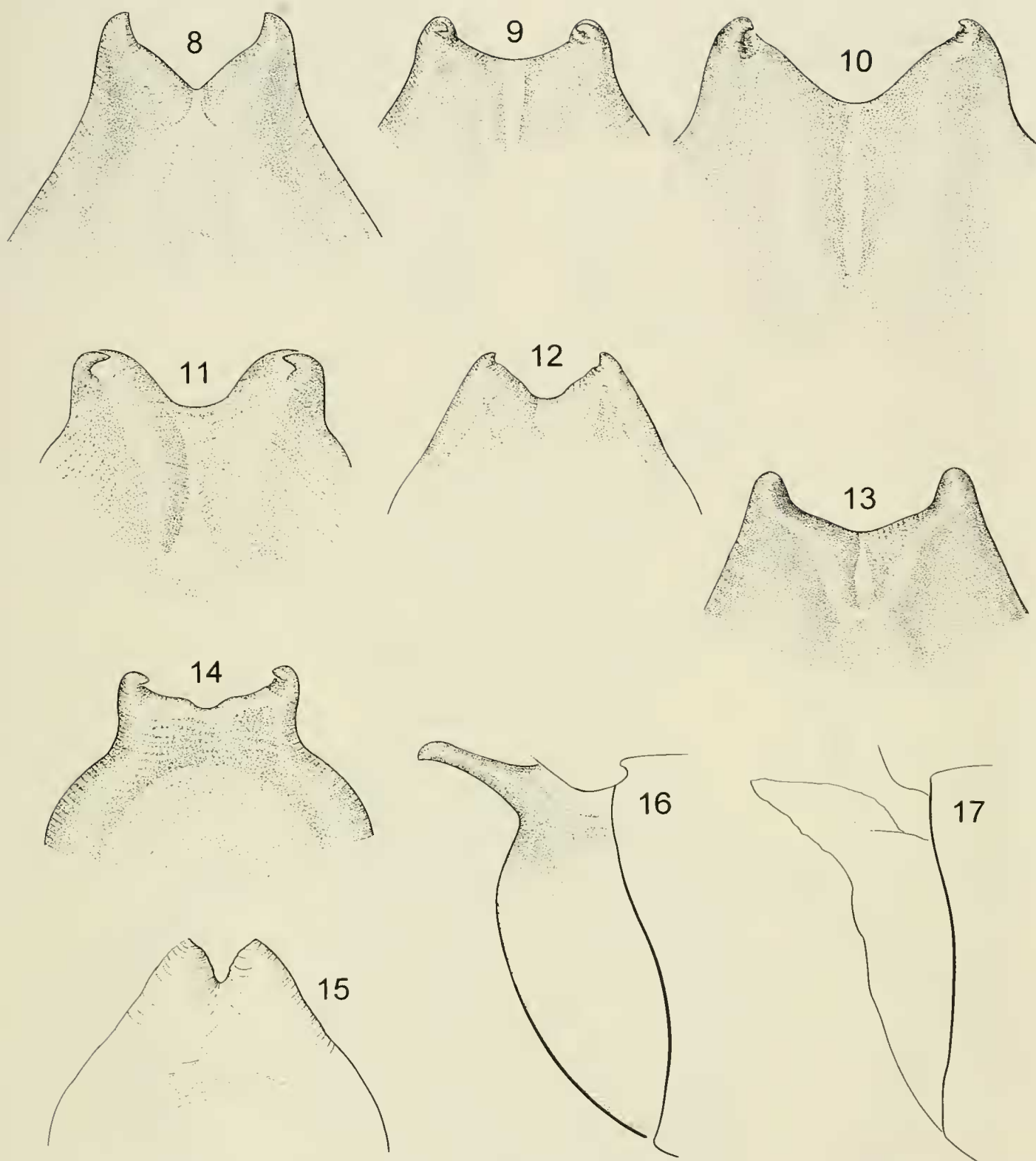
creamy yellow discoidal spot on inner third of apical margin of corium; costal margin bright orange yellow; hemelytral membrane dark yellow with veins brown; connexivum with anterior third dark brown, and posterior third yellow; dorsal abdominal segments black with reddish-brown reflections. *Ventral coloration*: Black with reddish-brown reflections; buccula, rostral segments I to IV, legs, anterior and posterior lobe of metahoracic peritreme, and posterior third of pleural abdominal sterna III to VII bright orange yellow to yellow; femora and tibia with reddish brown granules. *Structure*: Rostrum reaching anterior third of abdom-

inal sternite IV; genae with obtuse teeth directed laterally; frontal angles rounded, not raised; humeral angles rounded, and not exposed (Fig. 2).

*Genital capsule*: Posteroventral edge projected on a medium-sized plate, deeply concave, with the lateral lobes short and robust (Figs. 15, 17).

*Integument*: Body surface rather dull, and densely covered with circular grayish-white farinose punctures, and with short decumbent silvery bristlelike setae, intermixed with a few long erect hairs on abdominal sterna.

Female.—Coloration similar to male ho-



Figs. 8–17. 8–13. *Hygia (Splinctocolpura)* spp., male genital capsule in caudal view. 8, *H. (S.) punctipes*. 9, *H. (S.) alvarezii*. 10, *H. (S.) dentifer*. 11, *H. (S.) obscuripes*. 12, *H. (S.) oligotricha*. 13, *H. (S.) pictipes*. 14–15. *Hygia (Eucolpura)* spp., male genital capsule in caudal view. 14, *H. (E.) lugubris*. 15, *H. (E.) cassisi*. 16–17. *Hygia (Eucolpura)* spp., male genital capsule in lateral view. 16, *H. (E.) lugubris*. 17, *H. (E.) cassisi*.

lotype. Connexival segments VIII and IX dark brown, with upper margin dirty yellow; dorsal abdominal segments VIII and IX black with reddish-brown reflections; genital plates black with reddish-brown reflections, and with upper angle of gonocoxae I, upper and external margin of parater-

gite VIII and upper margin of paratergite IX yellow.

*Genitalia:* Abdominal sternite VII with a plica and fissura; plica triangular almost reaching middle third of sternite VII; gonocoxae I enlarged dorsoventrally, in lateral view with the external face entire, weakly

convex; paratergite VIII quadrate with spiracle visible; paratergite IX square, medium size, extending beyond external face of gonocoxae I, and with external margin folded.

Type material.—Holotype ♂, Philippine Republic: Palawan I., 67 km. N of Puerta Princesa, San Rafael, 70–80 m, 31-V-1984, R. Greenfield (BPBM). Paratypes: 1 ♂, 1 ♀, Philippine Republic: Palawan I., Sabang nr. Cabayugan, 17-20-I-1980, R. De Keyzer (AMS).

Discussion.—The species included in the subgenus *Hygia* (*Eucolpura*) appear to be very similar, especially the color pattern, and general external morphology. The differences noted in the posteroventral edge of the male genital capsule indicate the limits of each taxa. In *H. (E.) cassis*, the posteroventral edge is projected on a medium-sized plate, deeply concave, and with lateral lobes short and stout (Figs. 15, 17). In *H. (E.) lugubris* (Walker 1871), a closely related species, the posteroventral edge is projected on a medium-sized plate with pronounced U-shaped concavity, not deep, and enclosed by two short arms having a sharp inwardly curving spine apically on each side (Figs. 14, 16).

This is the first record of the subgenus *Eucolpura* for the Philippine Republic. Previously the subgenus was known from Malaysia, Borneo, Sumatra, Singapore, New Guinea, Timor, and Java (Blote 1936, and Brailovsky and Barrera 1997).

Etymology.—Named for Dr. Gerasimos Cassis, distinguished Australian entomologist.

*Hygia (Sphinctocolpura) alvarezii*

**Brailovsky, new species**

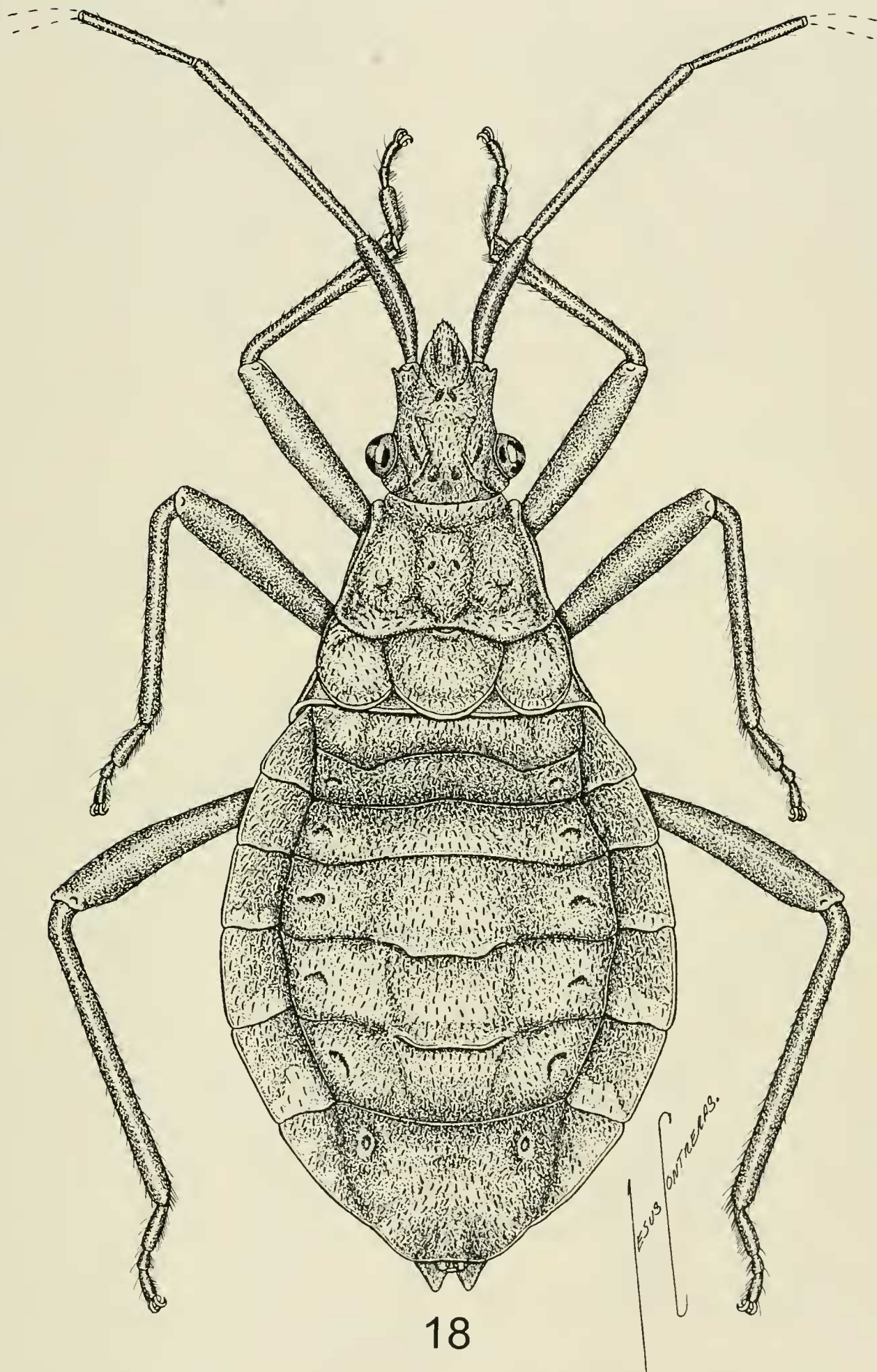
(Figs. 1, 9, 19–20)

Description.—*Measurements*: Male: Head length 1.80; width across eyes 1.84; interocular space 1.00; interocellar space 0.42; preocular distance 1.18; length antennal segments: I, 2.20; II, 3.20; III, 2.08; IV, 1.72. Pronotum: Length 2.20; maximum width of anterior lobe 2.24; maximum

width of posterior lobe 3.84. Scutellar length 1.60; width 1.48. Body length 12.20. Female: Head length 1.88; width across eyes 1.92; interocular space 1.04; interocellar space 0.49; preocular distance 1.28; length antennal segments: I, 2.20; II, 3.32; III, 2.20; IV, 1.84. Pronotum: Length 2.40; maximum width of anterior lobe 2.84; maximum width of posterior lobe 4.24. Scutellar length 1.80; width 1.76. Body length 13.17.

Male (holotype). *Dorsal coloration*: Head black, the space adjacent to eyes dirty yellow; antennal segments I to III dark reddish brown, IV dark chestnut brown with subbasal yellow ring; pronotum black to dark reddish brown, with two chestnut orange discoidal spots lateral to middle line and covering most of posterior lobe; scutellum dark reddish brown with apex dark chestnut orange; clavus and corium dark reddish brown with black discoidal spot on inner third of apical margin of corium; hemelytral membrane dark yellow with veins brown; connexival segments dark reddish brown with posterior border of segments III to VI dark chestnut orange; dorsal abdominal segments bright orange. *Ventral coloration*: Including rostral segments I to IV, and legs black to dark reddish brown; trochanter, squarish spot at propleura, posterior border of pleural margin of abdominal sterna III to VI, and anterior and posterior lobes of metathoracic peritreme dark chestnut orange. *Structure*: Head dorsally flat; rostrum reaching posterior border of abdominal sternite V; genae without sharp teeth projecting laterally; collar wide; frontal angles projecting forward as medium-sized conical lobes; humeral angles projected into rounded lobes, raised, directed outward, and conspicuously higher than posterior pronotal disc (Fig. 1); femora armed ventrally with two or three small subdistal spines.

*Genital capsule*: Posteroventral edge with pronounced U-shaped concavity, not deep, and enclosed by two medium-sized and robust arms, apically rounded (Fig. 9).



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Fig. 18. Dorsal view of *Kekihygia culliona*, male.

*Integument:* Body surface rather dull, with short decumbent silvery bristlelike setae, intermixed with a few long erect hairs, located on the abdominal sterna.

Female. Coloration similar to male holotype. Trochanter dark reddish brown to dark chestnut orange; femora dark reddish brown with or without yellow mark on anterior third; posterior lobe of metathoracic peritreme dark chestnut orange to black; connexival segments VIII and IX dark reddish brown; dorsal abdominal segment VIII bright orange, and IX dark reddish brown; genital plates dark reddish brown, with upper margin of gonocoxae I, and apical angle of paratergite VIII and IX dark chestnut orange.

Type material.—Holotype ♂, Philippine Republic: Mindanao, Zamboanga del Norte, Masawan Trail to Mt. Malindang (in jungle), 1,290 m, 2-VII-1958, H. E. Milliron (BPBM). Paratypes: 3 ♀, same data as holotype (BPBM, UNAM).

Discussion.—This new species resembles *H. (S.) dentifer* (Stål 1870), and *H. (S.) pictipes* (Stål 1870) in having the humeral angles projected into rounded lobes, raised, directed outward, and conspicuously higher than the posterior pronotal disc.

In *H. (S.) dentifer* and *H. (S.) pictipes*, the femora are yellow with brown rings or spots scattered through the segment, the trochanters are pale yellow, the tibiae reddish brown with two or three yellow rings, and connexival segments III to VI have the anterior and posterior margins yellow. In *H. (S.) alvarezii*, the femora and tibiae are entirely black to reddish brown, the trochanters are dark chestnut orange to dark reddish brown, and connexival segments III to VI are reddish brown and only the posterior border is dark chestnut orange.

An additional character is the shape of the posteroventral edge of the male genital capsule (Figs. 9–10, 13).

Etymology.—Named for Dr. Fernando Alvarez Noguera, distinguished Mexican carcinologist.

*Hygia (Sphinctocolpura) oligotricha*  
Brailovsky, new species  
(Figs. 4, 12)

Description.—*Measurements:* Male: Head length 1.74; width across eyes 1.86; interocular space 1.10; interocellar space 0.42; preocular distance 1.12; length antennal segments: I, 2.24; II, 2.96; III, 2.04; IV, 1.64. Pronotum: Length 2.28; maximum width of anterior lobe 2.20; maximum width of posterior lobe 3.28. Scutellar length 1.40; width 1.26. Body length 10.90. Female: Head length 1.84; width across eyes 2.00; interocular space 1.22; interocellar space 0.51; preocular distance 1.28; length antennal segments: I, 2.28; II, 3.20; III, 2.24; IV, 1.76. Pronotum: Length 2.64; maximum width of anterior lobe 2.48; maximum width of posterior lobe 3.72. Scutellar length 1.72; width 1.52. Body length 12.18.

Male (holotype). *Dorsal coloration:* Head black, space adjacent to eyes yellow; antennal segments I to III reddish brown, IV yellow with basal third reddish brown; pronotum dark reddish orange, calli and punctures reddish brown; scutellum dark reddish orange with punctures reddish brown, and apex yellow; clavus and corium reddish orange with punctures reddish brown, and black discoidal spot on inner third of apical margin of corium; hemelytral membrane creamy white with veins brown; connexivum reddish brown; dorsal abdominal segments bright reddish orange. *Ventral coloration:* Head black; buccula dark chestnut brown; rostral segment I yellow with lateral margins and apical third chestnut brown, and segments II to IV chestnut brown with apical joints of II and III yellow; thorax and abdominal sterna reddish brown to black with propleuron, posterior margin of mesopleuron and metapleuron, and pleural sterna margin dark reddish orange; coxae, fore and middle femora, tibiae and tarsi dark reddish orange; trochanters creamy yellow; hind femur dark reddish orange, with inner anterior third creamy yellow.

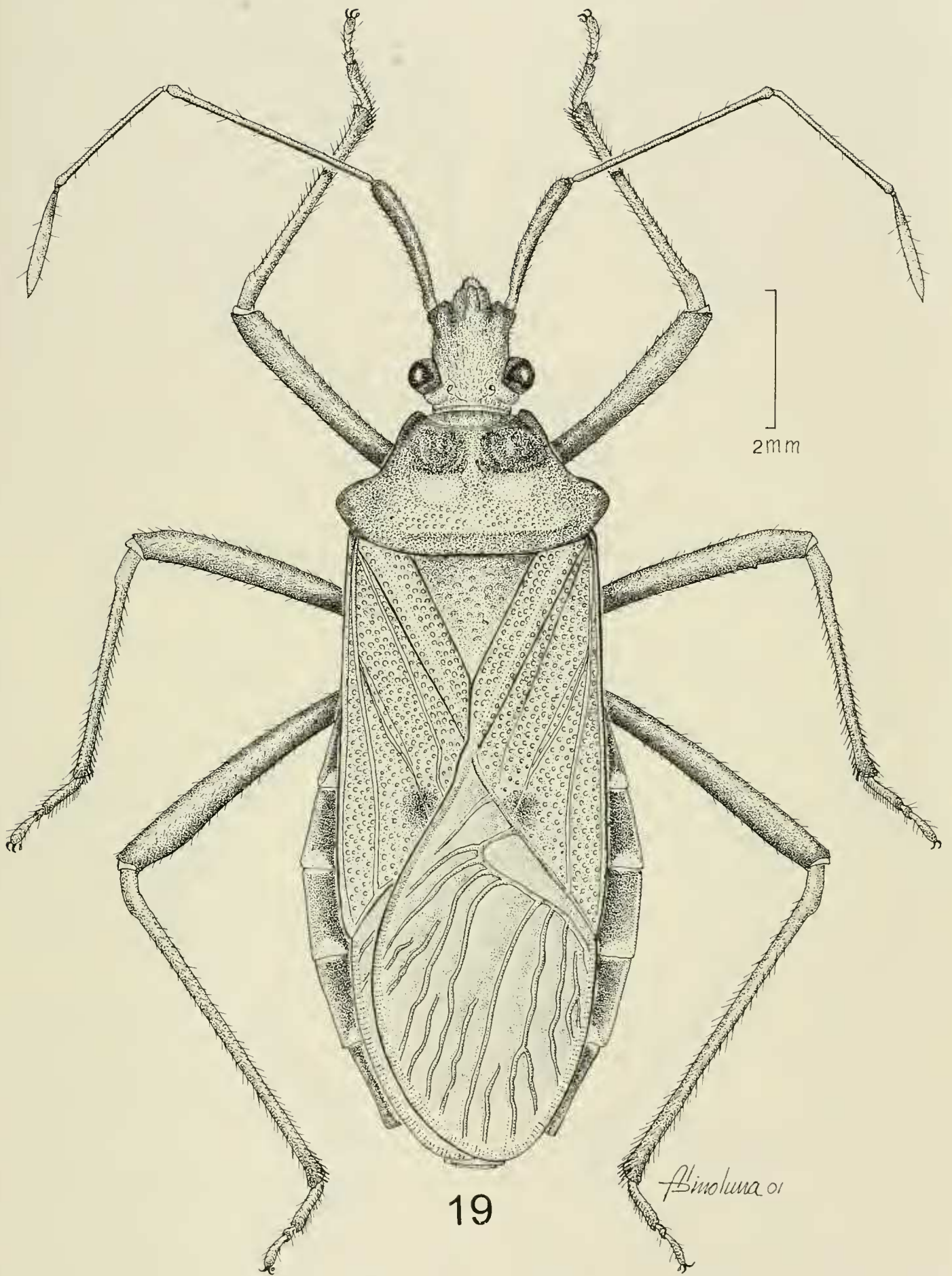


Fig. 19. Dorsal view of *Hygia (Splinctocolpura) alvarezii*, female.



low; anterior and posterior lobe of metathoracic peritreme creamy yellow. *Structure*: Head dorsally slightly convex; genae without sharp teeth projecting laterally; postocular tubercle protuberant; rostrum reaching posterior border of abdominal sternite III or anterior third of IV; collar wide; frontal angles rounded, weakly raised; humeral angles rounded, not exposed, and not higher than posterior pronotal disc (Fig. 4); femora armed ventrally with two or three small subdistal spines.

*Genital capsule*: Posteroventral edge with small U-shaped concavity, enclosed by two shorter arms (Fig. 12).

*Integument*: Body surface rather dull, with short decumbent silvery bristlelike setae, intermixed with a few long erect hairs on abdominal sterna; circular grayish-white farinose punctures not visible.

Female. Coloration similar to male holotype. Connexival segments III to VI reddish brown, with posterior margin yellow and VII to IX reddish brown; dorsal abdominal segments VIII and IX reddish brown; genital plates reddish brown to black, with upper angle of gonocoxae I, and apical angle of paratergite VIII and IX dirty yellow; pleural margin of abdominal sterna dark reddish orange, with posterior border of III to VI dirty yellow.

*Integument*: Body surface rather dull, with short decumbent silvery bristle-like setae, intermixed with few long erect hairs on abdominal sterna; posterior lobe of pronotal disc, scutellum, clavus, corium, and thorax, covered with circular grayish-white farinose punctures.

Type material.—Holotype ♂, Philippine Republic: Mindanao, E. slope Mt. Apo, Davao Province, 3,300'–4,300', XI-1946, P. Anonero, CNHM Philippine Zool. Exped. (1946–47) (FMNH). Paratype: 1 ♀, Philippine Republic: Islds Mindanao, Mt. Apo, Sibulan River, 2,000', X-1925, C. F. Clagg (BMNH).

Discussion.—*Hygia* (*Sphinctocolpura*) *oligotricha*, is similar to *H. (S.) obscuripes* (Stål 1870) and *H. (S.) punctipes* (Stål

1870) in having the femora almost unicolorous, relatively short rostrum, not extending beyond the abdominal sternite IV, a black head with the area adjacent to each eye yellow, and the humeral angles rounded, not exposed, and not higher than posterior pronotal disc (Figs. 3–4).

This new species is easily recognized by the shape of the posteroventral edge of male genital capsule which has a small U-shaped concavity at the middle third, enclosed by two shorter arms, in contrast with the closely related species (Figs. 8, 11–12). Additional characters are the head dorsally slightly convex, and the hemelytral membrane creamy yellow with veins brown. In the other two species the hemelytral membrane is pale brown with darker veins, and the head is dorsally flat.

Etymology.—From the Latin, *oligotricha*, meaning sparse hairs.

#### *Kekihygia culiona* Brailovsky, new species

(Figs. 5, 18)

Description.—*Measurements*: Male: Head length 1.96; width across eyes 1.66; interocular space 1.00; preocular distance 1.42; length antennal segments: I, 1.40; II, 2.56; III, 1.32; IV, missing. Pronotum: Length 1.34; maximum width of anterior lobe 1.52; maximum width of posterior lobe 2.28. Scutellar length 0.80; width 1.20. Body length 9.80.

Male (holotype). *Dorsal coloration*: Head reddish brown, postocular tubercle dark yellow; antennal segment I pale reddish brown, II and III chestnut orange (segment IV missing); pronotum pale reddish brown, collar and posterior margin chestnut orange; scutellum, hemelytron, connexivum, and abdominal segments pale reddish brown, posterior margin of connexival segments V and VI yellow. *Ventral coloration*: Pale reddish brown, buccula, and anterior and posterior lobes of metathoracic peritreme dark to pale yellow; acetabulae, and rostral segments I to IV chestnut orange; legs dark chestnut yellow. *Structure*: Head lon-

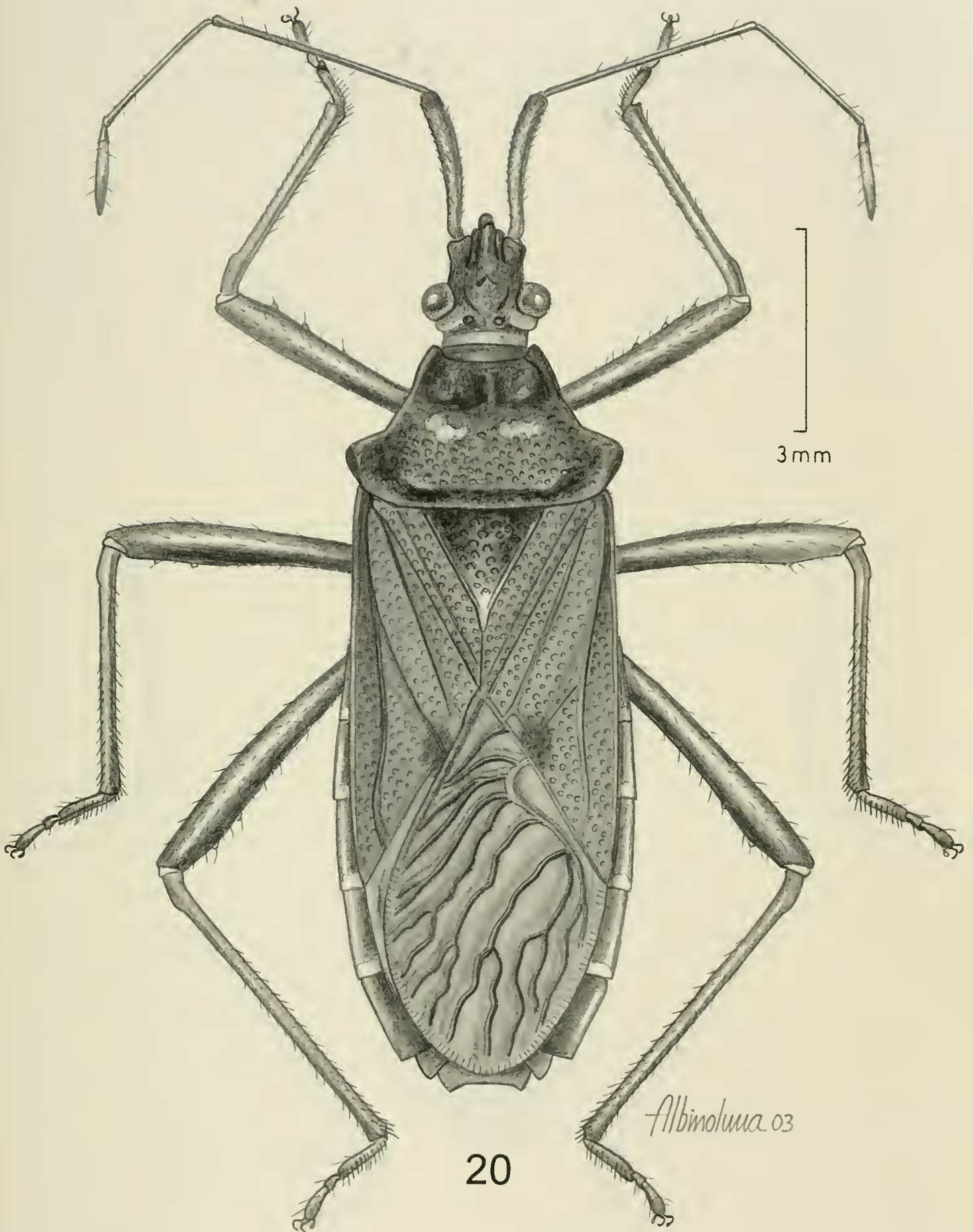


Fig. 20. Dorsal view of *Hygia (Sphinctocolpura) alvarezii*, female.

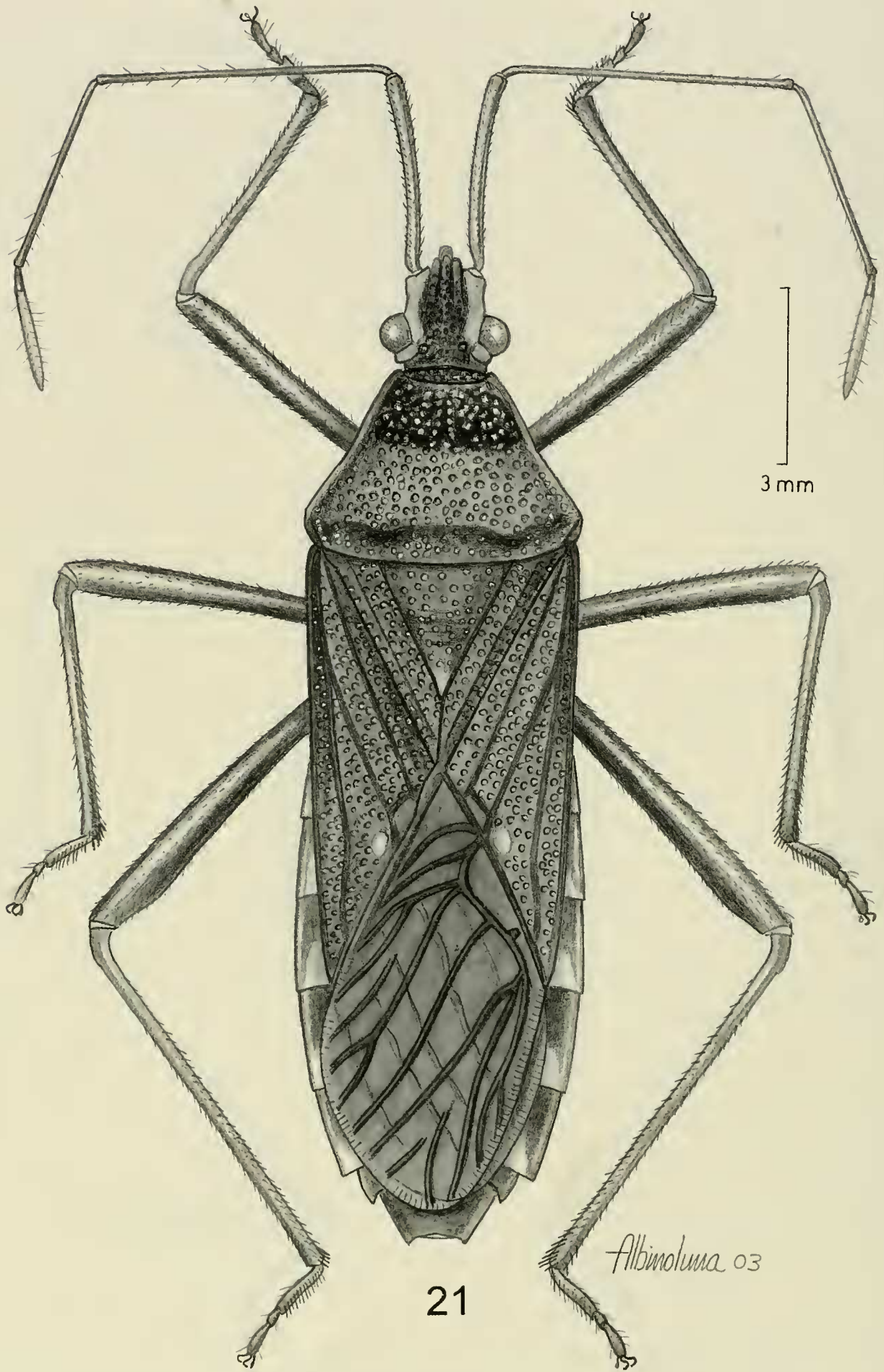


Fig. 21. Dorsal view of *Hygia (Eucolpura) cassisi*, female.

ger than wide; tylus unarmed, apically globose; antenniferous tubercle armed with wide lobes diverging anteriorly, and apically rounded; ocelli absent; postocular tubercle protuberant; rostrum reaching posterior border of abdominal sternite V. Thorax. *Pronotum*: Collar weakly apparent; anterior lobe longer than posterior lobe; frontal and humeral angles rounded; legs unarmed. *Scutellum*: Wider than long, apically rounded. *Hemelytra*: Micropterous; wings reduced to small pads, widely separated, with corium and clavus fused, abdomen exposed mesially, and membrane absent. *Abdomen*: Spherical.

*Genital capsule*. Posteroventral edge with deep V-concavity; lateral arms large and robust (Fig. 5).

Female. Unknown.

Type material.—Holotype ♂, Philippine Republic: Culion Is., 6 km W Culion, 6-VI-1962, H. Holtmann (BPBM).

Discussion.—*Kekihygia* Brailovsky 1994, endemic to the Philippine Republic, previously included two species *K. luzonica* Brailovsky and *K. vasarhelyi* Brailovsky. The third species *K. culiona*, is easily distinguished by the shape of posteroventral edge of male genital capsule, which has a deep V-shaped concavity with lateral arms large and robust (Fig. 5). In *K. vasarhelyi* the posteroventral edge has two small arms with tiny U-shaped concavity (Fig. 7), and the apex of scutellum has the bright yellow spot absent in the new species. In *K. luzonica* the posteroventral edge has two short acute lobes laterally delimited by two rounded lobes (Fig. 6), and the apex of scutellum has a dark yellow spot. The male genital capsule in *K. culiona* is pale reddish brown, and those of *K. luzonica* and *K. vasarhelyi* are black.

Etymology.—Named for the Philippine Island of Culion.

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